

-Ziggy's sells coffee and donuts.

-The total number of coffees and donuts Ziggy's sells today is 100.

-Ziggy's charges \$3 for coffee and \$1 per donut and made \$180 today.

Could you solve this problem on your own?

What strategies would you use to solve the problem?

Let's try a Guess & Check Table to help us out.

Guess: # of coffee	# of donuts	Total number of items = 100	Total \$ (3C + D)	Check: Total = \$180 (Too high or too low)

How can you use the table to write your system of equations?

What is your solution in context of the problem?

Practice:

Directions: Complete the following for each problem and show your work on a separate piece of paper:

1. Identify the important quantities
2. Create a guess and check table to solve the problem
3. Identify your equations and solution.

Isabelle sold tickets to the soccer game. Good seats were \$5 each and poor seats cost \$2 each. 210 people attended the game and paid a total of \$660. How many of each type of seat were sold?

Guess: #	#	Total number of items =	Total	Check: Total = (Too high or too low)

Substitution?

The sum of two numbers is 21. The larger number is 6 less than two times the smaller. What are the numbers?

Guess smaller #	Guess Larger Number	Sum = 21	Is 2 times smaller minus 6 = larger (2x -6 = y)	Check:

Visual Representations.

Problem 1: How can we use a diagram to solve substitution problems?

$$A = 3B$$

$$A + B = 380$$

Problem 2:

The baseball team is selling tickets to a spaghetti dinner. They sold four times more student tickets than adult tickets. They sold the student tickets for \$18 and the adult tickets for \$25 for a total of \$776. How many of each ticket did they sell?

Smarter Balance:

The basketball team sold t-shirts and hats as a fundraiser. They sold a total of 23 items and made a profit of \$246. They made a profit of \$10 for every t-shirt they sold and \$12 for every hat they sold.

Determine the number of t-shirts and the number of hats the basketball team sold.

Scratch Paper: